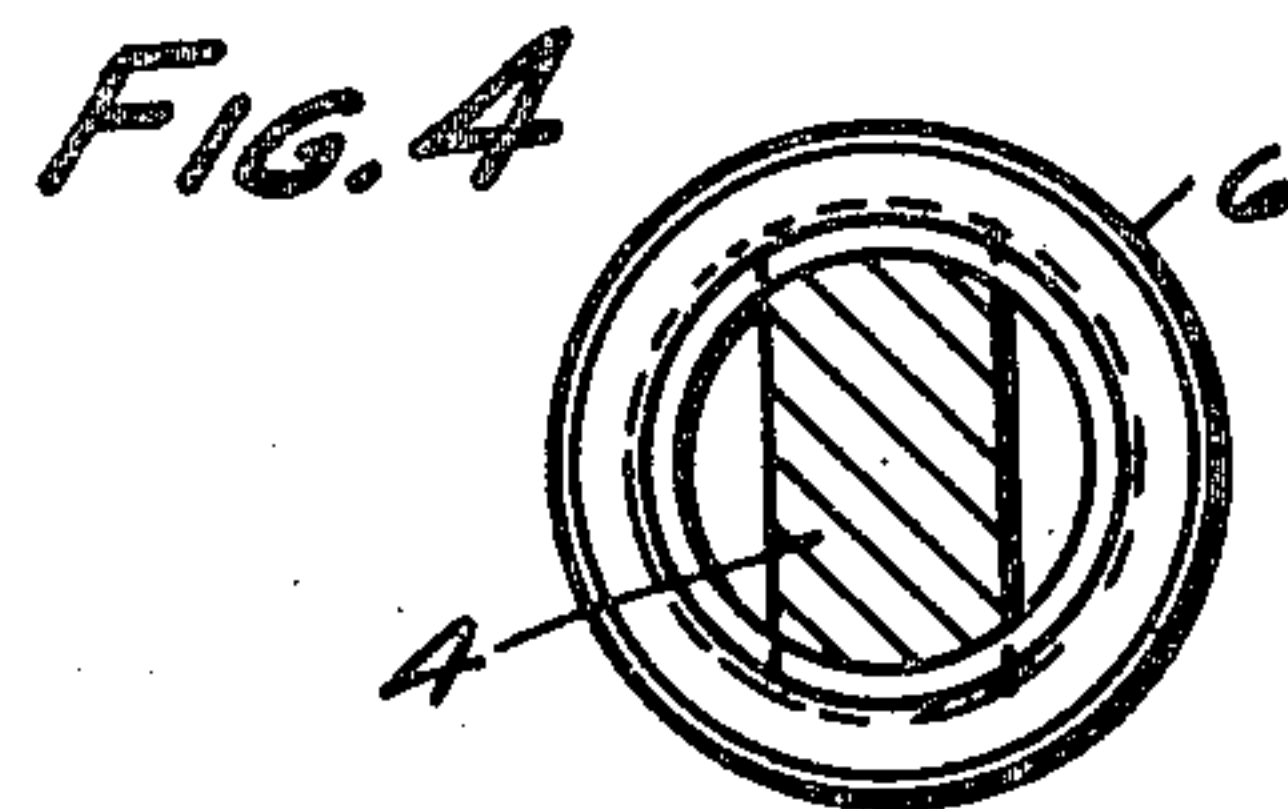
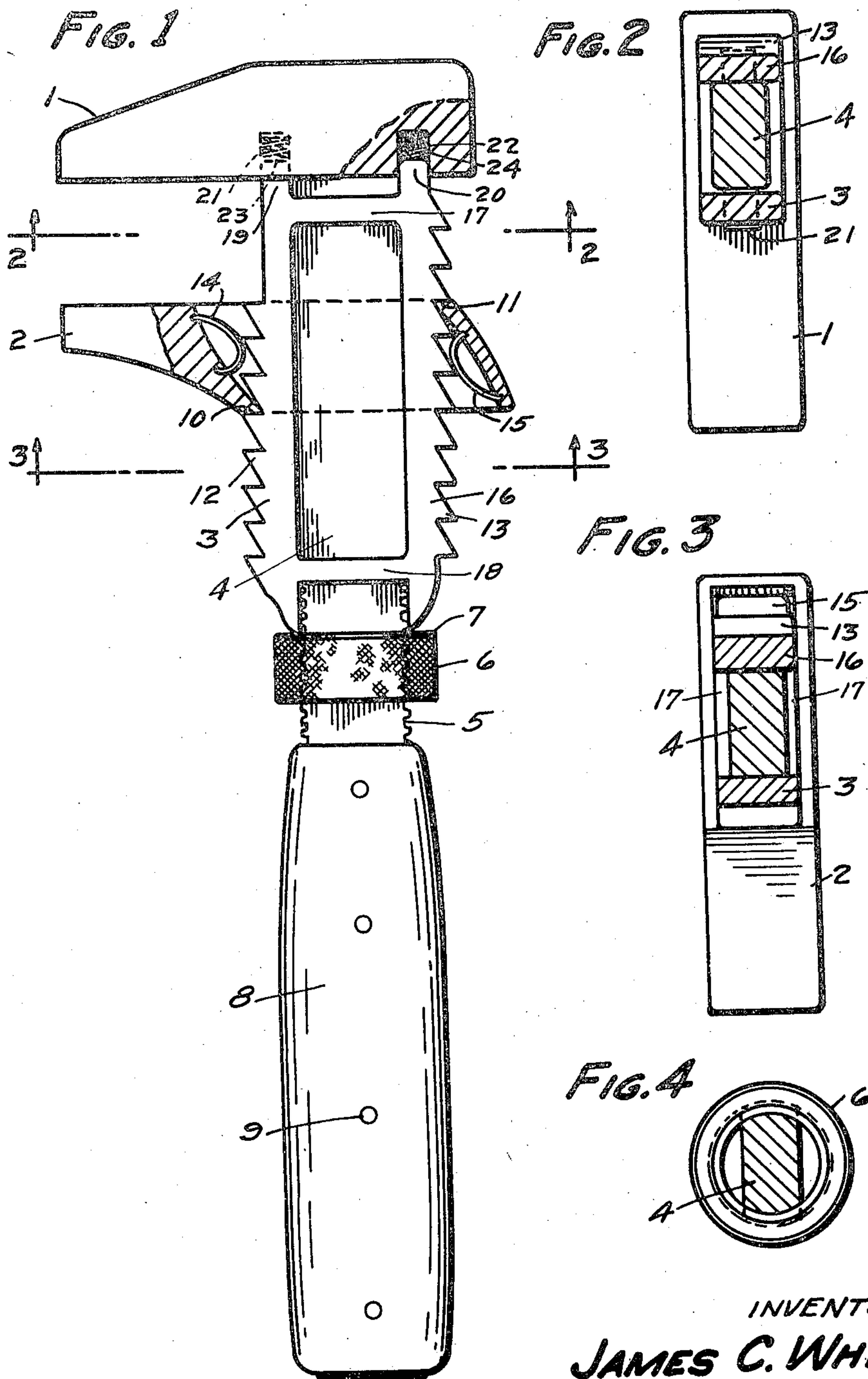


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DOUBLE ADJUSTMENT WRENCH HAVING
THREAD AND RACK ADJUSTMENTS
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DOUBLE ADJUSTMENT WRENCH HAVING
THREAD AND RACK ADJUSTMENTS

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2 Claims. (Cl. 81-147)

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The purpose of this invention is to provide a wrench in which the movable jaw may readily be slid to the holding position and then minutely adjusted by a nut.

The invention is a wrench having a stationary jaw fixed on the shank, with the movable jaw mounted on a sliding member with ratchet teeth in the opposite edges, and having a nut for minute adjustment.

Wrenches of this type have been provided which have ratchet teeth in the upper or lower edge of the shank, and in which the movable jaw is held by the teeth, but it has been found desirable to provide means for adjustably holding the movable jaw on a sliding member with teeth in both edges so that it is positively held, and furthermore readily adjusted by a nut threaded on the shank.

The object of this invention is therefore to provide an improved wrench of the quick set type in which the movable jaw is slidable on a sliding member and the sliding member is provided with minute adjustment.

Another object is to provide a wrench of the quick set type in which the movable jaw is held at both sides by edges extending into ratchet teeth.

And a still further object is to provide a wrench of the quick set type which is of a simple and economical construction.

With these ends in view the invention embodies a wrench having a shank with a fixed jaw at one end, a slider on said shank, a washer at the end of the slider, an adjusting nut engaging the washer, and a movable jaw with the parts thereof extending into ratchet teeth in the edges of the slider and resiliently held by springs.

Other features and advantages of the invention will appear from the following description taken in connection with the drawings, wherein:

Figure 1 shows a side view of the wrench with parts broken away.

Figure 2 is a section through the wrench on line 2-2 of Figure 1.

Figure 3 is a similar section on line 3-3 of Figure 1.

Figure 4 is a section through the shank showing the adjusting nut.

In the drawings the wrench is shown as it may be made wherein numeral 1 indicates the stationary jaw, numeral 2, the movable jaw, and numeral 3, the slider.

The jaw 1 is mounted on the end of a shank 4, with the edges of the shank provided with teeth 5 on which an adjusting nut 6 with a washer

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7 is threaded, and beyond the threads is a handle 8 which may be attached to the shank by pins 9, after the other parts of the wrench are in place.

The jaw 2 is formed as shown in Figures 1 and 3, and this has edges or webs forming prongs 10 and 11, that engage teeth 12 and 13 in the edges of the slider 3, and the jaw is held in the position shown by springs 14 and 15, thereby providing automatic means for readily adjusting the position of the jaw as soon as it is set or moved up against an object. This jaw 2 may therefore be tilted in a clockwise direction and moved along the slider until it is in a desired position, and then as it is released it will readily adjust itself to the vertical position as shown.

The slider 3 is formed with sections 3 and 16 on which the teeth 12 and 13 are formed and these sections are held together by side straps 17 and 18 so that the slider is free to slide along the shank. At the forward ends of the sections 3 and 16 are projections 19 and 20 that extend into notches 21 and 22 in the stationary jaw 1, and springs 21 and 22 may be provided in the notches to resiliently urge the slider against the washer 7.

It will be understood that changes may be made in the construction without departing from the spirit of the invention. The construction will be readily understood from the foregoing description. In use the jaws of the wrench may be opened and placed over a nut or the like, then the movable jaw may be slid up against the nut and released so that it may adjust itself to the vertical position and then the nut 6 may be turned for minute adjustment.

Having thus fully described the invention what I claim as new and desire to secure by Letters Patent, is:

1. In a quick-set wrench having a shank with parallel sides and edges, a handle at one end, a stationary jaw at the other, and threads in the edges adjacent the handle, the combination, which comprises, a carriage having a longitudinal opening extending therethrough through which the said shank extends, said carriage having oppositely positioned ratchet teeth in the opposite edges thereof, a movable jaw slidably mounted on the carriage having oppositely positioned pawl elements in the opposite faces thereof positioned to coact with the ratchet teeth of the carriage to hold the movable jaw in adjusted positions thereon, resilient means urging the movable jaw to operative position, and a nut on the threaded portion of the shank engaging the end of the carriage for minute adjustment of the jaw.

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2. In a quick-set wrench having a shank with threads in the edges, a handle, and a head forming a fixed jaw with openings therein associated with the edges of the shank, the combination, which comprises, a carriage having a longitudinal opening extending therethrough to slidably receive the shank with the projections at one end extending into the openings in the head, springs in the openings engaging the projections and urging the carriage away from said head, said carriage having ratchet teeth in the opposite edges, a movable jaw slidable on the carriage having pawl elements in the opposite faces positioned to coast with the ratchet teeth of the carriage, springs in the movable jaw positioned to urge the jaw to operative position, and a nut

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on the shank with a face thereof in engagement with the end of the carriage opposite to that engaged by the springs.

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